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| <b>UTILITY<br/>PATENT APPLICATION<br/>TRANSMITTAL</b><br><br>(Only for new nonprovisional applications under 37 CFR 1.53(b)) | Attorney Docket No.    | GLYO-P03-002  |
|  | First Inventor         | Yan Chang   |
|  | Title                  | METHOD FOR ENHANCING THE<br>EFFECTIVENESS OF CANCER THERAPIES |
|  | Express Mail Label No. | EV324845257US   |

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| <b>APPLICATION ELEMENTS</b><br>See MPEP chapter 600 concerning utility patent application contents. | ADDRESS TO: MS Patent Application<br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, VA 22313-1450 |
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| 1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17)<br>(Submit an original, and a duplicate for fee processing)<br>2. <input checked="" type="checkbox"/> Applicant claims small entity status.<br>See 37 CFR 1.27.<br>3. <input checked="" type="checkbox"/> Specification [Total Pages <b>18</b> ]<br>(preferred arrangement set forth below)<br>- Descriptive title of the invention<br>- Cross Reference to Related Applications<br>- Statement Regarding Fed sponsored R & D<br>- Reference to sequence listing, a table,<br>or a computer program listing appendix<br>- Background of the Invention<br>- Brief Summary of the Invention<br>- Brief Description of the Drawings (if filed)<br>- Detailed Description<br>- Claim(s)<br>- Abstract of the Disclosure<br>4. <input type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets <input type="checkbox"/><br>5. Oath or Declaration [Total Sheets <b>3</b> ]<br>a. <input type="checkbox"/> Newly executed (original or copy)<br>b. <input checked="" type="checkbox"/> Copy from a prior application (37 CFR 1.63(d))<br>(for continuation/divisional with Box 18 completed)<br>i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b><br>Signed statement attached deleting<br>inventor(s) named in the prior application,<br>see 37 CFR 1.63(d)(2) and 1.33(b).<br>6. <input checked="" type="checkbox"/> Application Data Sheet. See 37 CFR 1.76 | 7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or<br>Computer Program (Appendix)<br>8. Nucleotide and/or Amino Acid Sequence Submission<br>(if applicable, all necessary)<br>a. <input type="checkbox"/> Computer Readable Form (CRF)<br>b. Specification Sequence Listing on:<br>i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> Paper<br>c. <input type="checkbox"/> Statements verifying identity of above copies<br><b>ACCOMPANYING APPLICATIONS PARTS</b><br>9. <input type="checkbox"/> Assignment Papers (cover sheet & document(s))<br>10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of<br>(when there is an assignee) Attorney<br>11. <input type="checkbox"/> English Translation Document (if applicable)<br>12. <input checked="" type="checkbox"/> Information Disclosure <input type="checkbox"/> Copies of IDS<br>Statement (IDS)/PTO-1449 Citations<br>13. <input checked="" type="checkbox"/> Preliminary Amendment<br>14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503)<br>(Should be specifically itemized)<br>15. <input type="checkbox"/> Certified Copy of Priority Document(s)<br>(if foreign priority is claimed)<br>16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i).<br>Applicant must attach form PTO/SB/35 or its equivalent.<br>17. <input type="checkbox"/> Other: |
|---|---|

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: **10/176235**  
 Prior application information: Examiner **Kathleen Kahler Fonda** Art Unit: **1623**

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

|  |                                       |           |                |          |                |
|--|---------------------------------------|-----------|----------------|----------|----------------|
| <b>19. CORRESPONDENCE ADDRESS</b><br><input checked="" type="checkbox"/> Customer Number: <b>28120</b> OR <input checked="" type="checkbox"/> Correspondence address below |                                       |           |                |          |                |
| Name   | ROPE & GRAY LLP<br>Matthew P. Vincent |           |                |          |                |
| Address  | One International Place               |           |                |          |                |
| City   | Boston                                | State     | MA             | Zip Code | 02110-2624     |
| Country  | US                                    | Telephone | (617) 951-7000 | Fax      | (617) 951-7050 |

|                   |                          |                                   |                   |
|-------------------|--------------------------|-----------------------------------|-------------------|
| Name (Print/Type) | David P. Halstead, Ph.D. | Registration No. (Attorney/Agent) | 44,735            |
| Signature         |                          | Date                              | September 8, 2003 |

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV324845257US, in an envelope addressed to: MS Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: **9/8/03** Signature: **Mary Jane DiPalma** (Mary Jane DiPalma)22388 U.S. PTO  
10/657383  
09/08/03

|   |                   |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
|---|-------------------|---|--|--------------------|------------------|-------------|-------------------|----------------------|-----------|---------------|------------------|----------|-----|---------------------|--------------|
| <h2 style="margin: 0;">FEE TRANSMITTAL</h2> <h3 style="margin: 0;">for FY 2003</h3> <p style="font-size: small; margin: 0;">Effective 01/01/2003, Patent fees are subject to annual revision.</p> |                   | <h4 style="margin: 0;">Complete if Known</h4> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Application Number</td><td>Not Yet Assigned</td></tr> <tr><td>Filing Date</td><td>September 8, 2003</td></tr> <tr><td>First Named Inventor</td><td>Yan Chang</td></tr> <tr><td>Examiner Name</td><td>Not Yet Assigned</td></tr> <tr><td>Art Unit</td><td>N/A</td></tr> <tr><td>Attorney Docket No.</td><td>GLYO-P03-002</td></tr> </table> |  | Application Number | Not Yet Assigned | Filing Date | September 8, 2003 | First Named Inventor | Yan Chang | Examiner Name | Not Yet Assigned | Art Unit | N/A | Attorney Docket No. | GLYO-P03-002 |
| Application Number  | Not Yet Assigned  |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| Filing Date   | September 8, 2003 |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| First Named Inventor  | Yan Chang         |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| Examiner Name   | Not Yet Assigned  |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| Art Unit  | N/A               |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| Attorney Docket No.   | GLYO-P03-002      |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27   |                   |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |
| <b>TOTAL AMOUNT OF PAYMENT</b> (\$)    393.00   |                   |   |  |                    |                  |             |                   |                      |           |               |                  |          |     |                     |              |

  

| <h4 style="text-align: center; margin: 0;">METHOD OF PAYMENT (check all that apply)</h4> <p> <input type="checkbox"/> Check    <input type="checkbox"/> Credit Card    <input type="checkbox"/> Money Order    <input type="checkbox"/> Other    <input type="checkbox"/> None       </p> <p> <input checked="" type="checkbox"/> Deposit Account       </p> <p>         Deposit Account Number: <span style="border: 1px solid black; padding: 2px 20px;">18-1945</span><br/>         Deposit Account Name: <span style="border: 1px solid black; padding: 2px 20px;">Ropes &amp; Gray LLP</span> </p> <p>The Director is hereby authorized to: (check all that apply)</p> <p> <input checked="" type="checkbox"/> Charge fee(s) indicated below    <input checked="" type="checkbox"/> Credit any overpayments<br/> <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application<br/> <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.       </p> | <h4 style="text-align: center; margin: 0;">FEE CALCULATION (continued)</h4> <h5 style="margin: 0;">3. ADDITIONAL FEES</h5> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>410</td><td>2252</td><td>205</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>930</td><td>2253</td><td>465</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,450</td><td>2254</td><td>725</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>1,970</td><td>2255</td><td>985</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>320</td><td>2401</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>320</td><td>2402</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,300</td><td>2453</td><td>650</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,300</td><td>2501</td><td>650</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>470</td><td>2502</td><td>235</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>630</td><td>2503</td><td>315</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>1809</td><td>750</td><td>2809</td><td>375</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>750</td><td>2810</td><td>375</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>750</td><td>2801</td><td>375</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> </tbody> </table> <p>Other fee (specify) _____</p> <p>*Reduced by Basic Filing Fee Paid    <b>SUBTOTAL (3)</b>    (\$)    0.00</p> | Large Entity |          | Small Entity   |          | Fee Description | Fee Paid | Fee Code | Fee (\$) | Fee Code | Fee (\$) | 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath |  | 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet |  | 1053 | 130 | 1053 | 130 | Non-English specification |  | 1812 | 2,520 | 1812 | 2,520 | For filing a request for <i>ex parte</i> reexamination |  | 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action |  | 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action |  | 1251 | 110 | 2251 | 55 | Extension for reply within first month |  | 1252 | 410 | 2252 | 205 | Extension for reply within second month |  | 1253 | 930 | 2253 | 465 | Extension for reply within third month |  | 1254 | 1,450 | 2254 | 725 | Extension for reply within fourth month |  | 1255 | 1,970 | 2255 | 985 | Extension for reply within fifth month |  | 1401 | 320 | 2401 | 160 | Notice of Appeal |  | 1402 | 320 | 2402 | 160 | Filing a brief in support of an appeal |  | 1403 | 280 | 2403 | 140 | Request for oral hearing |  | 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding |  | 1452 | 110 | 2452 | 55 | Petition to revive - unavoidable |  | 1453 | 1,300 | 2453 | 650 | Petition to revive - unintentional |  | 1501 | 1,300 | 2501 | 650 | Utility issue fee (or reissue) |  | 1502 | 470 | 2502 | 235 | Design issue fee |  | 1503 | 630 | 2503 | 315 | Plant issue fee |  | 1460 | 130 | 1460 | 130 | Petitions to the Commissioner |  | 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) |  | 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt |  | 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) |  | 1809 | 750 | 2809 | 375 | Filing a submission after final rejection (37 CFR 1.129(a)) |  | 1810 | 750 | 2810 | 375 | For each additional invention to be examined (37 CFR 1.129(b)) |  | 1801 | 750 | 2801 | 375 | Request for Continued Examination (RCE) |  | 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application |  |
|---|--|--------------|----------|--|----------|-----------------|----------|----------|----------|----------|----------|------|-----|------|----|-------------------------------------|--|------|----|------|----|--|--|------|-----|------|-----|---------------------------|--|------|-------|------|-------|--|--|------|------|------|------|--|--|------|--------|------|--------|---|--|------|-----|------|----|--|--|------|-----|------|-----|---|--|------|-----|------|-----|--|--|------|-------|------|-----|---|--|------|-------|------|-----|--|--|------|-----|------|-----|------------------|--|------|-----|------|-----|--|--|------|-----|------|-----|--------------------------|--|------|-------|------|-------|---|--|------|-----|------|----|----------------------------------|--|------|-------|------|-----|------------------------------------|--|------|-------|------|-----|--------------------------------|--|------|-----|------|-----|------------------|--|------|-----|------|-----|-----------------|--|------|-----|------|-----|-------------------------------|--|------|----|------|----|-------------------------------------|--|------|-----|------|-----|---|--|------|----|------|----|--|--|------|-----|------|-----|---|--|------|-----|------|-----|--|--|------|-----|------|-----|---|--|------|-----|------|-----|---|--|
| Large Entity  |  | Small Entity |          | Fee Description  | Fee Paid |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| Fee Code  | Fee (\$)   | Fee Code     | Fee (\$) |  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1051  | 130  | 2051         | 65       | Surcharge - late filing fee or oath  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1052  | 50   | 2052         | 25       | Surcharge - late provisional filing fee or cover sheet                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1053  | 130  | 1053         | 130      | Non-English specification  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1812  | 2,520  | 1812         | 2,520    | For filing a request for <i>ex parte</i> reexamination                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1804  | 920*   | 1804         | 920*     | Requesting publication of SIR prior to Examiner action                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1805  | 1,840*   | 1805         | 1,840*   | Requesting publication of SIR after Examiner action                        |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1251  | 110  | 2251         | 55       | Extension for reply within first month                                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1252  | 410  | 2252         | 205      | Extension for reply within second month                                    |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1253  | 930  | 2253         | 465      | Extension for reply within third month                                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1254  | 1,450  | 2254         | 725      | Extension for reply within fourth month                                    |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1255  | 1,970  | 2255         | 985      | Extension for reply within fifth month                                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1401  | 320  | 2401         | 160      | Notice of Appeal   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1402  | 320  | 2402         | 160      | Filing a brief in support of an appeal                                     |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1403  | 280  | 2403         | 140      | Request for oral hearing   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1451  | 1,510  | 1451         | 1,510    | Petition to institute a public use proceeding                              |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1452  | 110  | 2452         | 55       | Petition to revive - unavoidable   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1453  | 1,300  | 2453         | 650      | Petition to revive - unintentional   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1501  | 1,300  | 2501         | 650      | Utility issue fee (or reissue)   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1502  | 470  | 2502         | 235      | Design issue fee   |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1503  | 630  | 2503         | 315      | Plant issue fee  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1460  | 130  | 1460         | 130      | Petitions to the Commissioner  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1807  | 50   | 1807         | 50       | Processing fee under 37 CFR 1.17(q)  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1806  | 180  | 1806         | 180      | Submission of Information Disclosure Stmt                                  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 8021  | 40   | 8021         | 40       | Recording each patent assignment per property (times number of properties) |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1809  | 750  | 2809         | 375      | Filing a submission after final rejection (37 CFR 1.129(a))                |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1810  | 750  | 2810         | 375      | For each additional invention to be examined (37 CFR 1.129(b))             |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1801  | 750  | 2801         | 375      | Request for Continued Examination (RCE)                                    |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |
| 1802  | 900  | 1802         | 900      | Request for expedited examination of a design application                  |          |                 |          |          |          |          |          |      |     |      |    |                                     |  |      |    |      |    |  |  |      |     |      |     |                           |  |      |       |      |       |  |  |      |      |      |      |  |  |      |        |      |        |   |  |      |     |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |       |      |     |   |  |      |       |      |     |  |  |      |     |      |     |                  |  |      |     |      |     |  |  |      |     |      |     |                          |  |      |       |      |       |   |  |      |     |      |    |                                  |  |      |       |      |     |                                    |  |      |       |      |     |                                |  |      |     |      |     |                  |  |      |     |      |     |                 |  |      |     |      |     |                               |  |      |    |      |    |                                     |  |      |     |      |     |   |  |      |    |      |    |  |  |      |     |      |     |   |  |      |     |      |     |  |  |      |     |      |     |   |  |      |     |      |     |   |  |

  

| <h4 style="text-align: center; margin: 0;">FEE CALCULATION</h4> <h5 style="margin: 0;">1. BASIC FILING FEE</h5> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1001</td><td>750</td><td>2001</td><td>375</td><td>Utility filing fee</td><td>375.00</td></tr> <tr><td>1002</td><td>330</td><td>2002</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>520</td><td>2003</td><td>260</td><td>Plant filing fee</td><td></td></tr> <tr><td>1004</td><td>750</td><td>2004</td><td>375</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td><td>Provisional filing fee</td><td></td></tr> </tbody> </table> <p style="text-align: right;"><b>SUBTOTAL (1)</b>    (\$)    375.00</p> |          | Large Entity |          | Small Entity   |          | Fee Description | Fee Paid | Fee Code | Fee (\$) | Fee Code | Fee (\$) | 1001 | 750 | 2001 | 375 | Utility filing fee | 375.00 | 1002 | 330 | 2002 | 165 | Design filing fee |  | 1003 | 520 | 2003 | 260 | Plant filing fee |  | 1004 | 750 | 2004 | 375 | Reissue filing fee |  | 1005 | 160 | 2005 | 80 | Provisional filing fee |  | <h5 style="margin: 0;">2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</h5> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>1201</td><td>84</td><td>2201</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>1203</td><td>280</td><td>2203</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>1204</td><td>84</td><td>2204</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> </tbody> </table> <p style="text-align: right;"><b>SUBTOTAL (2)</b>    (\$)    18.00</p> <p style="font-size: x-small;">**or number previously paid, if greater; For Reissues, see above</p> |  | Large Entity |  | Small Entity |  | Fee Description | Fee Paid | Fee Code | Fee (\$) | Fee Code | Fee (\$) | 1202 | 18 | 2202 | 9 | Claims in excess of 20 |  | 1201 | 84 | 2201 | 42 | Independent claims in excess of 3 |  | 1203 | 280 | 2203 | 140 | Multiple dependent claim, if not paid |  | 1204 | 84 | 2204 | 42 | ** Reissue independent claims over original patent |  | 1205 | 18 | 2205 | 9 | ** Reissue claims in excess of 20 and over original patent |  |
|--|----------|--------------|----------|--|----------|-----------------|----------|----------|----------|----------|----------|------|-----|------|-----|--------------------|--------|------|-----|------|-----|-------------------|--|------|-----|------|-----|------------------|--|------|-----|------|-----|--------------------|--|------|-----|------|----|------------------------|--|---|--|--------------|--|--------------|--|-----------------|----------|----------|----------|----------|----------|------|----|------|---|------------------------|--|------|----|------|----|-----------------------------------|--|------|-----|------|-----|---------------------------------------|--|------|----|------|----|--|--|------|----|------|---|--|--|
| Large Entity   |          | Small Entity |          | Fee Description  | Fee Paid |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| Fee Code   | Fee (\$) | Fee Code     | Fee (\$) |  |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1001   | 750      | 2001         | 375      | Utility filing fee   | 375.00   |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1002   | 330      | 2002         | 165      | Design filing fee  |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1003   | 520      | 2003         | 260      | Plant filing fee   |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1004   | 750      | 2004         | 375      | Reissue filing fee   |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1005   | 160      | 2005         | 80       | Provisional filing fee                                     |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| Large Entity   |          | Small Entity |          | Fee Description  | Fee Paid |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| Fee Code   | Fee (\$) | Fee Code     | Fee (\$) |  |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1202   | 18       | 2202         | 9        | Claims in excess of 20                                     |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1201   | 84       | 2201         | 42       | Independent claims in excess of 3                          |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1203   | 280      | 2203         | 140      | Multiple dependent claim, if not paid                      |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1204   | 84       | 2204         | 42       | ** Reissue independent claims over original patent         |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |
| 1205   | 18       | 2205         | 9        | ** Reissue claims in excess of 20 and over original patent |          |                 |          |          |          |          |          |      |     |      |     |                    |        |      |     |      |     |                   |  |      |     |      |     |                  |  |      |     |      |     |                    |  |      |     |      |    |                        |  |   |  |              |  |              |  |                 |          |          |          |          |          |      |    |      |   |                        |  |      |    |      |    |                                   |  |      |     |      |     |                                       |  |      |    |      |    |  |  |      |    |      |   |  |  |

  

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| <h4 style="margin: 0;">SUBMITTED BY</h4> <p>Name (Print/Type) <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;">David P. Halstead, Ph.D.</span></p> <p>Signature <span style="border-bottom: 1px solid black; display: inline-block; width: 150px;"></span></p> |  | <p>Registration No. (Attorney/Agent) <span style="border-bottom: 1px solid black; display: inline-block; width: 50px;">44,735</span></p> <p>Telephone <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;">(617) 951-7615</span></p> <p>Date <span style="border-bottom: 1px solid black; display: inline-block; width: 100px;">September 8, 2003</span></p> |  |
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Dated: September 8, 2003    Signature: Mary Jane DiPalma (Mary Jane DiPalma)